DIVISIONS OF FLORIDA DEPARTMENT OF STA
Office of the Secretary
Office of International Relations
Division of Elections
Division of Corporations
Division of Cultural Affairs
Division of Historical Resources
Division of Library and Information Services
Division of Licensing
Division of Administrative Services

MEMBER OF THE FLORIDA CABINET
State Board of Education
Trustees of the Internal Improvement Trust Fund
Administration Commission
Florida Land and Water Adjudicatory Commission
Siting Board
Division of Bond Finance
Department of Revenue
Department of Law Enforcement
Department of Highway Safety and Motor Vehicles
Department of Veterans' Affairs

FLORIDA DEPARTMENT OF STATE
Katherine Harris
Secretary of State

DIVISION OF HISTORICAL RESOURCES

November 17, 1999

Ms. Cherie Trainor
State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

RE: DHR Project File No. 997837
Cultural Resource Assessment Request
SAI# FL9706030472CR2
Final Environmental Impact Statement - Alligator Chain and Lake Gentry Extreme Drawdown and Habitat Enhancement Project
Osceola County, Florida

Dear Ms. Trainor:

We have reviewed the referenced draft environmental impact assessment. We specifically reviewed sections 3.09 and 4.06, both dealing with Historic, Cultural and Archaeological Resources. We note that in two previous reviews of this project (DHR No. 974658 and 992653) this agency recommended that a professional archaeologist re-locate and clearly mark the two known archaeological sites in the field, so that all project activities can avoid these known sites, and thereby, these sites will not be adversely impacted. Once these known sites and other which will appear with the drawdown, are exposed and vulnerable, they will need to be patrolled to prevent vandalism and unauthorized collecting. This agency should be notified of any newly encountered cultural resources.

We look forward to future coordination between Florida Game and Fresh Water Fish Commission and this office with regards to this action. Conditioned upon early and sufficient consultation with the State Historic Preservation Office the proposed Alligator Chain and Lake Gentry Extreme Drawdown and Habitat Enhancement Project will be consistent with the historic preservation laws of Florida's Coastal Management Program.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservation Planner, at 850-487-2333 or 800-847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Janet Snyder Matthews

Janet Snyder Matthews, Ph.D.
State Historic Preservation Officer

JSM/Ese

xc: Jasmin Raffington, FCMP-DCA

R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250 • http://www.flheritage.com

Director's Office (850) 488-1480 • FAX: 488-3353
Archaeological Research (850) 487-2299 • FAX: 414-2207
Historic Preservation (850) 487-2333 • FAX: 922-0496
Historical Museums (850) 488-1484 • FAX: 921-2503
Historic Pensacola Preservation Board (850) 595-5985 • FAX: 595-5989
Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476
St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044
Tampa Regional Office (813) 272-3843 • FAX: 272-2340

COUNTY: Osceola

Message:

DATE: 10/08/1999
COMMENTS DUE -2 WKS: 10/22/1999
CLEARANCE DUE DATE: 11/22/1999
SAI#: FL9706030472CR2

STATE AGENCIES	WATER MANAGEMENT DISTRICTS	OPB POLICY UNITS
Community Affairs Environmental Protection Fish & Wildlife Conserv. Comm OTTED State Transportation	X South Florida WMD St. Johns River WMD	Environmental Policy/C & ED

RECEIVED
OCT 12 1999
REGULATION DEPT. - 401

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evalutation and is categorized as one of the following:

— Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

_X_ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

— Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

— Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

Department of the Army - District Corps of Engineers - Environmental Impact Statement (EIS) for the Alligator Lake Chain and Lake Gentry Habitat Enhancement Project - Volumes I and II - Osceola County, Florida.

To: **Florida State Clearinghouse**
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 922-5438 (SC 292-5438)
(850) 414-0479 (FAX)

EO. 12372/NEPA

☐ No Comment
☐ Comments Attached
☐ Not Applicable

Federal Consistency

☐ No Comment/Consistent
☐ Consistent/Comments Attached
☐ Inconsistent/Comments Attached
☒ Not Applicable

SFWMD IS CO-AUTHOR OF SAID DOCUMENT

From:
Division/Bureau: SFWMD/PLN
Reviewer: J M CARNES
Date: 10/13/99

TOTAL P.01

COUNTY: Osceola

Rec'd 10/14/99

Message:

DATE: 10/08/1999
COMMENTS DUE-2 WKS: 10/22/1999
CLEARANCE DUE DATE: 11/22/1999
SAI#: FL9706030472CR2

STATE AGENCIES	WATER MANAGEMENT DISTRICTS	OPB POLICY UNITS
Community Affairs Environmental Protection Fish & Wildlife Conserv. Comm OTTED State Transportation	South Florida WMD X St. Johns River WMD	Environmental Policy/C & ED

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evalutation and is categorized as one of the following:

___ Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

_X_ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

___ Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

___ Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

Department of the Army - District Corps of Engineers - Environmental Impact Statement (EIS) for the Alligator Lake Chain and Lake Gentry Habitat Enhancement Project - Volumes I and II - Osceola County, Florida.

To: **Florida State Clearinghouse**
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 922-5438 (SC 292-5438)
(850) 414-0479 (FAX)

EO. 12372/NEPA

☐ No Comment
☐ Comments Attached
☐ Not Applicable

Federal Consistency

☐ No Comment/Consistent
☐ Consistent/Comments Attached
☐ Inconsistent/Comments Attached
☐ Not Applicable

RECEIVED
OCT 14 1999
State of Florida Clearinghouse

From: NOT In SJRWMD
Division/Bureau: SJRWMD/OPP
Reviewer: [signature] 10/12/99
Date:

COUNTY: Osceola

Message:

DATE: 10/08/1999
COMMENTS DUE-2 WKS: 10/22/1999
CLEARANCE DUE DATE: 11/22/1999
SAI#: FL9706030472CR2

STATE AGENCIES	WATER MANAGEMENT DISTRICTS	OPB POLICY UNITS
Community Affairs Environmental Protection Fish & Wildlife Conserv. Comm OTTED State Transportation	South Florida WMD St. Johns River WMD	X Environmental Policy/C & ED

RECEIVED
OCT 12 1999
OFFICE OF PLANNING & BUDGETING
ENVIRONMENTAL POLICY UNIT

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evalutation and is categorized as one of the following:

— Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

_X_ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

— Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

— Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

Department of the Army - District Corps of Engineers - Environmental Impact Statement (EIS) for the Alligator Lake Chain and Lake Gentry Habitat Enhancement Project - Volumes I and II - Osceola County, Florida.

To: **Florida State Clearinghouse**
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 922-5438 (SC 292-5438)
(850) 414-0479 (FAX)

EO. 12372/NEPA

- [x] No Comment
- [ ] Comments Attached
- [ ] Not Applicable

Federal Consistency

- [ ] No Comment/Consistent
- [ ] Consistent/Comments Attached
- [ ] Inconsistent/Comments Attached
- [ ] Not Applicable

RECEIVED
NOV 1 6 1999
State of Florida Clearinghouse

From:
Division/Bureau: E.O.G. OPB - Env. Policy Unit
Reviewer: [signature]
Date: 11/12/99

64

CASTELLI FARMS

7580 E. IRLO BRONSON MEM. HWY. • ST. CLOUD, FLORIDA 34771

PHONE (407) 957-3203 FAX (407) 957-3434

THE HOME OF EXTRA NICE QUALITY "PLECOS"

Our Customers Never Run Out

December 9,1999

To: Army Corps of Engineers

James C. Duck
Adam Stewart
Jim Viril
Col. Miller
Liz Manners
Heather Carolan
Office of Council

Ref: N.W. 1 overview Emergency wetlands Resources Act of 1986. Public Law-99-645-S (7401 November 10, 1986 16 USC 1390) Note: 16 USC 3901 copy enclosed for your convience

To Whom It May Concern:

(1) I believe if you read the above mentioned E.W.R.A. of 1986 Page 100-STAT 3582 Sec. 2 finding and statement of purpose A (3) and you look at the photos of Castelli Farms marked Exhibit 1 and 2, photos of Blackwater Fisheries and Sunset Tropicals I believe personally that the Alligator Chain of Lakes drawdown will be in absolute total conflict with the Emergency Wetlands Resources Act of 1986.
The photos show clearly that drawing down the Alligator Chain of Lakes will do far more than just significant impact to the wetlands. Also you, Army Corps of Engineers, are in possession of the National Wetlands Inventory Maps for Big Bend Swamp and the Alligator Chain of Lakes. These maps along with our photos totally disprove South Florida Water Management Dist. and Army Coprs of Engineers E.I.S. on no significant impact.

(2) They show that South Florida Water Management Dist.'s MKE-SHE Model to not only be false but absolutely lacking in any proveable facts and that South Florida Water Management Dist. Cone of Influence to be nothing but fiction with no proof.

(3) The above mentioned maps and photos show indisputable proof that Army Corps of Engineers and South Florida Water Management Dist.'s E.I.S. is a fairytale with no substance in fact. We have already shown a preponderance of evidance with these photos and maps that the E.I.S. is false. We are still gathering much more evidance but you are refusing to give us enough time because you know we can prove it all

false now.

(4) You will also note that on your Wetland Inventory Maps for Big Bend Swamp and Alligator Chain of Lakes that the elevations reading of swamp are the elevations of water not-repeat-not <u>land</u>, but WATER.

David Castelli
Castelli Farms

Footnote- Maps will arrive December 10, 1999- A.M.

CASTELLI FARMS

7580 E. IRLO BRONSON MEM. HWY. • ST. CLOUD, FLORIDA 34771

PHONE (407) 957-3203 FAX (407) 957-3434

THE HOME OF EXTRA NICE QUALITY "PLECOS"

Our Customers Never Run Out

December 9, 1999

To: Army Corps of Engineers

James C. Duck
Adam Stewart
Jim Viril
Col. Miller
Liz Manners
Heather Carolan
Office of Council

Comments to be included in the Comment Period ending Dec. 10, 1999

Ref: N.W. 1 overview Emergency Wetlands Resources Act of 1986. Public Law-99-645-S (7401 November 10, 1986 16 USC 1390) Note: 16 USC 3901 copy enclosed for your convience

To Whom It May Concern:

(1) With the significant new information contained in E.W.R.A. Act of 1986 and National Wetland Inventory Map, after further review of it I do not believe that the Alligator Chain of Lakes drawdown to be a activity allowed under this Act.

(2) Even if for argument sake, South Florida Water Management District's Cone of Influence was anywhere near right. The effects on Big Bend Swamp as shown in the E.I.S. would be of great significant impact under E.W.R.A. Act of 1986.

(3) You simply cannot alter the water levels artifically during wintering, breeding or migration of the birds. If a drought occurs naturally there is nothing you can do about it. But you can not cause one yourself.

(4) Now for argument sake, let's say you donot agree totally. Fine. You still under E.W.R.A. of 1986 would not be allowed to take any water out of Big Bend Swamp before late April or early May. Period. And you would have to fill Big Bend Swamp back up to normal by late September or early October. Period.

None of this information was ever taken into account in the E.I.S. making further review absolutely necessary.

David Castelli

David Castelli
Castelli Farms

OFFA, INC.

Osceola Fish Farmers Association, Inc.

3460 Hickory Tree Rd
St. Cloud, Florida 34772

Telephone (407) 892-7051
Fax (407) 892-5797

December 9, 1999

Comments to be included in the EIS.

US Department of the Army
Jacksonville District Corps of Engineers
P.O.Box 4970
Jacksonville, Fl. 32232-0019

To Whom It May Concern

The Osceola Fish Farmers were only recently made aware that there were maps that clearly showed where our farms sat in conjunction with Big Bend Swamp, canals, and the lakes. These maps are in the possession of all the agencies involved in this project.

The Fish Farmers at great expense has been forced to obtain these maps and provide them to USACOE. The same maps you can bring up on your computer with a few keystrokes.

(1) With these maps at your beckon call, why were they not used in the EIS? When the question has been raised many times about wether Big Bend Swamp really is a swamp or land with ponding water on it as SFWMD has said. These maps can easily show what the truth is. Is that why you did not use them in the EIS?

Where are the topography maps of Ashton and South St. Cloud?
Where is the National Wetland Inventory Map?
Why are no elevations, other than our farm elevations in the EIS?

(2) Why have the fish farmers had to spend ten of thousands of dollars to try to save the very wetlands you are suppose to protect? Why did the fish farmers have to stand up for the habitat? We are not commissioned to do this. We don't get payed to protect the environment, no pension plan here.

Why are Government agencies so willing and able to destroy a National Treasure?

(3) The obvious deleting of these very important mans shows an obvious conspiracy on all the agencies part to hold the truth from the public, and from the Environmental groups that would obviously be interested if they only knew the destruction you have planned for our environment.

You also know that these maps were not make readily available to us. It took the Department of Agriculture to force these showing of these maps. You also know that copies of all these maps cannot be made readily available to us. You intentionally make the deadline such as we could not receive all the maps in time. The same maps you already own, but did not make available to us, or our Attorney, or to the Public, in the EIS. (4)

Since valuable information was left out of the EIS, it would appear that further review would be absolutely necessary.

Sincerely,

Rhonda Walther

Rhonda Walther
V.P. OFFA, Inc.

LAW OFFICES OF
WILLIAM E. GUY, JR.

55 EAST OCEAN BOULEVARD
POST OFFICE BOX 3386
STUART, FLORIDA 34995-3386

TELEPHONE (561) 286-7372
FAX (561) 220-3318
E-MAIL weg@gate.net

WILLIAM E. GUY, JR.*
JOHN S. YUDIN**
BARBARA A. COOK***

* ALSO ADMITTED IN 9TH U.S. C.C.A.
** ALSO ADMITTED IN DISTRICT OF COLUMBIA
*** ALSO ADMITTED IN U.S.VIRGIN ISLANDS

December 9, 1999

James C. Duck
Chief, Planning Division
United States Army Corps of Engineering
Jacksonville District Corps of Engineering
P.O. Box 4970
Jacksonville, FL 32232-0019

Re: Comments to Alligator Chain and Lake Gentry Extreme Drawdown Project Final Environmental Impact Statement

To whom it may concern:

As you may be aware, our office represents the interests of several fish farmers in Osceola County. These comments are submitted on their behalf.

On December 3, 1999 we received notice that the comment period for the Final Environmental Impact Statement for the Alligator Lake Chain and Lake Gentry Extreme Drawdown and Habitat Enhancement Project is Osceola County, had been extended until December 10, 1999. Accordingly, we assume that the following comments will be considered in conjunction with, and not separate from, the prior comments submitted.

In an attempt to provide the Corps with some scientific basis to support the above referenced project the SFWMD undertook a modeling effort using the MIKE SHE model. As we have previously pointed out to the Corps, the MIKE SHE model is anything but a reliable and accepted model in the field of groundwater modeling. We have further previously pointed out to the Corps numerous factors which call in to question the reliability and accuracy of SFWMD's MIKE SHE model. Those reasons include the fact that in Florida, the Corps has never allowed a permittee to undertake a MIKE SHE model to support a proposed project; that there has never been a completed application of the model in the State of Florida; that the SFWMD has failed to undertake the follow-up actions described in their own "peer reviews" of the model; that the "peer reviewers" were not provided with the actual model to review, but rather were only provided with SFWMD's interpretation of the model and accordingly, the actual MIKE SHE model itself has never been reviewed; and that SFWMD did not even provide the Corps with all materials necessary to conduct a proper review of the model, specifically the source code.

(1)

In light of the above, and due to the fact that the Corps has a statutory duty to insure the professional and scientific integrity of the EIS, we previously requested that the Corps check the integrity and validity of SFWMD's MIKE SHE model proposing several potential alternatives to accomplish verification of the model. The Corps (contrary to what would normally do in any other instance involving a private permittee) refused to require verification of the model indicating that it was relying on SFWMD's submissions "as gospel" until such time as they were proven wrong. (2)

In response to the Corps lack of desire to investigate the validity of the MIKE SHE model, our clients, at great personal expense, retained Dr. Michael Voorhees to undertake a true "peer review" of the entire MIKE SHE model. Thus, Dr. Voorhees was retained in an attempt to verify the results of the entire model, not just SFWMD's interpretations of the model as the District retained its "peer reviewers" to do.

Rather than embracing the idea of having their entire model "peer reviewed" by a competent and independent reviewer, SFWMD has instead refused to provide Dr. Voorhees with the necessary source codes for the model, asserting a claim that they are precluded from do so because the codes are proprietary material. Dr. Voorhees has advised that in the field of groundwater modeling, source codes are freely exchanged in order to allow for technical review of models to ensure their accuracy. In light of the odd refusal to provide the source codes, Dr. Voorhees contacted the developer of the MIKE SHE model (Danish Hydrologic Institute (DHI)) in an attempt to confirm the assertions of SFWMD. Dr. Voorhees was informed by DHI that, contrary to the assertions of SFWMD, there is no such preclusion contained in SFWMD's licensing agreement for the model and that SFWMD is certainly able to provide the source codes if they so choose. We then, on November 9, 1999, requested from SFWMD a copy their licensing agreement in an attempt to demonstrate to the Corps that SFWMD is in fact able to provide Dr. Voorhees with the source codes. As of the date of this letter, SFWMD has failed to provide us with a copy of the licensing agreement. (3)

SFWMD's failure to comply with our reasonable requests to obtain the necessary materials has therefore been the sole cause in preventing Dr. Voorhees from finalizing his independent "peer review" of SFWMD's MIKE SHE model. Dr. Voorhees has however, been able to undertake a steady state calibration as was recommended by all of SFWMD's peer reviewers (and never done by SFWMD), a copy of which is enclosed. **The steady state model indicates that the impacts of the drawdown will be far more pronounced than as stated in the SFWMD's MIKE SHE model**. These results obviously beg the question of why did SFWMD choose not to undertake a steady state calibration as recommended by their own "peer reviewers"? Perhaps they knew what the outcome would be? (4)

Obviously, Dr. Voorhees steady state calibration results further call in to question the professional and scientific integrity of SFWMD's MIKE SHE model. It also reinforces our belief that SFWMD is in no way desirous of having their entire model independently reviewed because SFWMD is fully aware that they have knowingly provided the Corps with flawed model results.

In addition to providing the Corps with the results of this steady state calibration, our clients have under separate cover, provided the Corps with various maps obtained from the

National Wetlands Inventory and the United States Geological Service. These maps are easily accessible by the Corps and by the SFWMD and conclusively demonstrate that the wetlands adjacent to the lakes are surficially connected wetland systems which are continuously wet rather than being dry land with isolated wetlands. This is substantial new information relating to this project because one of the major assumptions SFWMD has relied upon and has incorporated in their MIKE SHE model is that the wetlands adjacent to the lakes were isolated and disconnected from the lakes.

(5)

By assuming that the adjacent wetlands were isolated rather than being a connected continuously wet system SFWMD introduced a major error in to their model thereby corrupting any results obtained. The point of introducing this error was apparently a deliberate attempt to show a discernable disconnect in the drainage system between Alligator Lake and the fish farms. Establishing such a disconnect was critical to SFWMD's being able to limit the zone of influence of the drawdown. Once SFWMD had effectively limited the zone of influence in the model, they were free to speculate that the drawdown would have no impacts to the Castelli and Sunset farms. In other words, because these maps disprove one of the major assumptions used in SFWMD's model the entire model itself is invalidated.

(6)

Based on the above, and in conjunction with our prior submissions to the Corps, we have now demonstrated the following:

(7)

a. that water levels at fish farms and in the adjacent wetlands were significantly and adversely affected by the "test drawdown";

b. the USACOE has never accepted a MIKE SHE model to support any prior proposed project. USACOE has always previously required MODFLOW models which are recognized as reliable and are easily verifiable;

c. there has never been a completed application of the MIKE SHE model in the State of Florida, thus there is no reason for the USACOE to believe that the MIKE SHE model is in any way a reliable model;

d. the "peer reviews" paid for by SFWMD (which in and of itself connotes a certain prejudice) only reviewed SFWMD's interpretation of the MIKE SHE model and were not provided with the data and source codes to review the entire model;

e. the "peer reviewers" unanimously indicated that in order to ensure the accuracy of this model, that a steady state calibration needed to be undertaken. SFWMD failed to undertake a steady state calibration;

f. that the steady state calibration undertaken by Dr. Voorhees directly contradicts the results of SFWMD's MIKE SHE model. Accordingly, based upon the comments of SFWMD's own "peer review", the accuracy of the MIKE SHE model is seriously called in to question;

g. SFWMD's actual MIKE SHE model has never been "peer reviewed";

h. SFWMD has been engaged in a pattern of behavior to prevent and obstruct review of its entire model;

I. SFWMD has failed and refused to provide Dr. Voorhees with the necessary source codes and materials so that the MIKE SHE model can be checked for accuracy;

j. SFWMD has falsely asserted that they are not permitted to provide Dr. Voorhees with the source codes for the model;

k. in contrast to the erroneous assumptions of SFWMD, the wetlands adjacent to the lakes are in fact surficially connected, and not dry land with isolated wetlands. Thus, one of the

major assumptions in the MIKE SHE model is clearly erroneous, thereby drastically and necessarily altering the results of SFWMD's model;

l. that neither the Corps, nor the SFWMD has **properly** considered the effects to the wetlands adjacent to the lakes, due to the fact that both the Corps and SFWMD have up to this point, assumed the wetlands to be isolated wetlands, not a continuously wet system. Continuously wet systems do not benefit from periodic drying and burning as previously asserted. Further, no data or scientific basis has been provided to support the assumption that the wetlands adjacent to the lakes have a history of periodically drying; and

m. that rather than being in the public interest, this project is merely a project which will enhance the property values and lakefront views of the few lakefront homeowners.

(8) Pursuant to 40 C.F.R. 1502.24 the Corps has a statutory duty to ensure the professional and scientific integrity of this EIS. Considering the overwhelming evidence provided to the Corps to indicate that major erroneous assumptions were incorporated in to the MIKE SHE model, that SFWMD is taking affirmative actions to prevent independent verification of their model, and that the steady state calibration seriously calls in to question the accuracy of the MIKE SHE model, the Corps must take affirmative steps to ensure the professional and scientific integrity of the MIKE SHE model.

(9) Ensuring the scientific validity of this EIS can be accomplished in a number of ways, including, production of a supplemental EIS to address the new wetland issue as well as to verify the MIKE SHE model; require that SFWMD provide us with all necessary materials in order to undertake and independent review of the MIKE SHE model; require SFWMD to do a MODFLOW model as a verification; or, require that a "peer review" of the entire model be undertaken.

As we have continually done in the past, we are again simply requesting that the Corps take some affirmative steps to ensure that the MIKE SHE model is accurate, valid and reliable. We firmly believe that this is not an unreasonable request in light of the totality of the evidence indicating that the results of the MIKE SHE model are severely flawed.

Sincerely,

William E. Guy, Jr.

WEG/pd

Enclosure

cc: Osceola Fish Farmers, Inc.

CASTELLI FARMS

7580 E. IRLO BRONSON MEM. HWY. • ST. CLOUD, FLORIDA 34771
PHONE (407) 957-3203 FAX (407) 957-3434

THE HOME OF EXTRA NICE QUALITY "PLECOS"
Our Customers Never Run Out

December 9, 1999

To: Army Corps of Engineers

James C. Duck
Adam Stewart
Jim Viril
Col. Miller
Liz Manners
Heather Carolan
Office of Council

Comments to be included in the Comment Period ending Dec. 10, 1999

Ref: N.W. 1 overview Emergency Wetlands Resources Act of 1986. Public Law-99-645-S (7401 November 10, 1986 16 USC 1390) Note: 16 USC 3901 copy enclosed for your convience

To Whom It May Concern:

(1) With the significant new information contained in E.W.R.A. Act of 1986 and National Wetland Inventory Map, after further review of it I do not believe that the Alligator Chain of Lakes drawdown to be a activity allowed under this Act.

(2) Even if for argument sake, South Florida Water Management District's Cone of Influence was anywhere near right. The effects on Big Bend Swamp as shown in the E.I.S. would be of great significant impact under E.W.R.A. Act of 1986.

(3) You simply cannot alter the water levels artifically during wintering, breeding or migration of the birds. If a drought occurs naturally there is nothing you can do about it. But you can not cause one yourself.

(4) Now for argument sake, let's say you donot agree totally. Fine. You still under E.W.R.A. of 1986 would not be allowed to take any water out of Big Bend Swamp before late April or early May. Period. And you would have to fill Big Bend Swamp back up to normal by late September or early October. Period.

None of this information was ever taken into account in the E.I.S. making further review absolutely necessary.

David Castelli

David Castelli
Castelli Farms

TABLE OF CONTENTS

RESPONSE TO OSCEOLA FISH FARMERS ASSOCIATION, INC.
3460 Hickory Tree Road
St. Cloud, Florida 34772
Letter Dated: 12 October 1999

1. This letter requests written response from the agency so that the writer may make further comments before the close of the comment period. This was not appropriate. Mr. Castelli has been in constant contact by phone with Army Corps of Engineer (Corps) staff throughout the entire EIS process, including the comment period. The comments raised in the Oct. 12 letter appear to repeat comments made previously, and responded to several times, including in the Final Environmental Impact Statement (FEIS). The Corps staff in phone calls with Castelli has also addressed them. In any event, the purpose of the comment period is to obtain comments on the FEIS document from the public, not to start another round of discussion, which in turn will generate more requests for clarification, more comments, and still more requests for delay. Public comments should be made on the FEIS document itself, not on an agency response to a letter after the FEIS was done.

2. Preparation, review, and circulation of the EIS and other pertinent information have been on going throughout the study process. The problems, need, and benefits of the proposed work have been carefully and thoroughly evaluated during this process. Back-up data provided by the Florida Fish and Wildlife Conservation Commission (FWC), South Florida Water Management District (SFWMD), other agencies, and members of the public have been assimilated and reviewed throughout the EIS process. There has been an open and systematic approach to this study that has led to development of accurate and complete information concerning the impacts and benefits of the proposed work. The Corps has considered important information provided by the FWC, SFWMD, and other agencies and parties including OFFA, INC throughout the process. No agency or interested party has received preferential treatment at any time during the study. There have been numerous meetings and conversations with OFFA, INC to insure that their concerns and information are included in the process.

3. SFWMD has provided information indicating their in-house experience with the MIKE-SHE model. SFWMD's response stated that "The MIKE-SHE model was brought into use by the SFWMD to fill a need for a small scale integrated surface water and ground water model. The model underwent a rigorous testing and evaluation process. As part of the

process the model has been applied to four different areas in the SFWMD, as follows:

- Everglades Nutrient Removal Project
- Alligator Chain Habitat Enhancement Project
- Calloosahatchee River Basin
- Flint Pen Stand

The SFWMD's evaluation shows that the model is appropriate for use in the Alligator Chain of Lakes area. The Corps are not aware of its use by other agencies in the state. Staff from the USGS attended the training sessions provided by Danish Hydraulic Institute (DHI) at the SFWMD. Integrated surface water and groundwater modeling is a high priority with the USGS and they are looking at the MIKE SHE model as one possible tool for their use".

4. Unless specifically stated in its request for proposal or permit application, the Corps does not specify to a public agency or a private interest which model is to be used in its engineering analyses. Each model will be evaluated on its appropriateness for the application. The Corps knowledge of MIKE-SHE is that it is an internationally accepted groundwater-surface water model with three-dimensional capability and is appropriate for the application.

5. In order to review a modeling study, it is not imperative that the source code for the model be reviewed. If the code has proven reliability and acceptance, the review should focus on the more critical elements of the modeling such as the physical grid, input data, calibration results, boundary conditions and interpretation of results.

6. The MIKE-SHE software is proprietary and unless the Corps purchases a licensing agreement with DHI, the Corps will be unable to review the source code. However, as stated in the above comment, in this situation, the Corps does not consider the source code to be the critical element. Also, as stated previously, SFWMD has since performed additional analyses that satisfy the recommendations made by the peer review and Stimmel and Anderson.

7. This allegation shows a complete misunderstanding of the EIS process. The purpose of the EIS process is for an agency to consider the environmental consequences of its actions. It does not determine what remedies one person, group, or company may have against another in a state court of law. It is not appropriate for a federal agency to stop consideration of the environmental consequences of a proposed action just because one interested group is suing another interested group in a state court. To do so would violate the agency's responsibility to determine regulation schedules in federal projects and to assess the environmental and hydrological consequences of agency actions. This is not a situation

where the agency can postpone a decision. There are people and groups claiming that failure to approve a change in the regulation schedule will injure them. In other words, one side, which includes the Alligator Lakes Homeowners Association, Congressman Weldon and several state agencies see damage if the lake *is not* drawndown. The other side, principally Osceola Fish Farmers Association, is claiming damage if the lake *is* drawndown. Failure to make a decision, or postponing a decision until the time when weather precludes a drawdown this season, is actually a kind of decision, a decision which may harm the public if the first side is right. The Corps must decide what its position is. Again, it bears repeating that the federal EIS process does not deprive anyone of any remedies or right to damages that a state court may decide they have under state law.

8. See response to the previous comment.

9. The Corps has directly contacted DHI and requested clarification on the software disclosure provisions of SFWMD"S MIKE SHE licensing agreement. DHI has deferred to SFWMD and the Corps to resolve the issue of allowing access to MIKE SHE for technical review. Correspondence between the Corps and SFWMD documents that SFWMD has reviewed its licensing agreement with DHI and maintains it is prohibited form disclosing or disseminating copies of the software.

10. Historically, the lakes in this area fluctuated between much higher and lower levels than they are allowed under the existing regulation curves. Part of this natural historic process accomplished natural flushing of sediments through these interconnected lakes. However, the current more stable lake levels have contributed to build-up of sediments and plants in these lakes, which has resulted in degraded habitat for fish and other lake inhabitants. The drawdown would mitigate the adverse effects of the stable water levels. FWC regularly collects fish and other pertinent data from these lakes. It has been clearly demonstrated that drawdowns have positive results on fisheries of lakes including Lake Toho. However, the drawdowns are required periodically to counteract the continual build-up of sediments, which occur even after a drawdown and muck removal effort is completed.

RESPONSE TO OSCEOLA FISH FARMERS ASSOCIATION, INC.
3460 Hickory Tree Road
St. Cloud, Florida 34772
Letter Dated: 20 October 1999

1. Florida Fish and Wildlife Conservation Commission (FWC) has provided (Attachment 1) copies of all of the heavy metal and pesticide testing complete to date. As far as the fish population in Alligator Lake - Attachment 2 shows all of the fish population data taken on the Alligator Lake Chain. No FWC employee has ever stated that this project will offer a future fishery that will compare to the fishery in lakes Tohopekaliga or Kissimmee. The reason is that even after the project the basic productivity in the Alligator Chain of Lakes will not support the same sportfish density per acre as these lakes. The fishery will improve following the project, but to what degree is to be determined by how this drawdown is allowed to be conducted and habitat management following the project. Raising the low pool elevation from 58.5' msl to 60.0' msl has already compromised the Alligator Chain of Lakes and Lake Gentry Habitat Enhancement Project successfulness. This water level change will have a negative effect on the overall positive fishery response following the project. Additionally, if the minimum 90-day drying period necessary for a successful project is not accomplished then the fishery response will be further limited. It is important to remember that the South Florida Water Management District (SFWMD), at the request of the Alligator Lake Homeowners Association, asked the then Game and Fresh Water Fish Commission to assist them with a project plan and implementation of that plan to improve the habitat and fishery in the Alligator Chain of Lakes and Lake Gentry. This project's primary goal is to improve the shallow water habitat surrounding all of the project lakes in the Chain.

2. Refer to previous response.

3. Hydrologic modeling and monitoring wells installed by Florida Department of Environmental Protection (FDEP) and SFWMD to monitor and predict the effect of a drawdown on the farms has revealed that 7 fish farms would not be impacted by the drawdown according to their 15 June 1999 letter. Measures to avoid potential impacts to two fish farms, Moonlight and Blackwater, are being aggressively pursued. The Lake Gentry drawdown is being delayed to minimize impacts to these two farms. The overall benefits of a drawdown on the lake habitat fishery overwhelmingly outweigh the short-term adverse effects on the fishery. The planned drawdown project was modified to reduce the potential for impacts from

the project, including the potential for impacts to two fish farms. The planned drawdown elevation for the Alligator Chain was changed from 58.5 ft NGVD to 60.0 ft NGVD and the Lake Gentry drawdown to 56.5 ft NGVD was postponed. Also, please see response to Comment 14, below and the response to Comment 5 of FDACS' letter dated 25 October 1999.

4. The justification for the proposed drawdown is based upon its expected benefit to the environment. In such cases, justification based on dollar-denominated benefits and costs is not required. The Army Corps of Engineers (Corps) policy with respect to environmental benefits is to describe and measure this type of benefit in non-monetary terms. The commentor is correct, in that no investigations of potential economic benefits to the local economy resulting for the proposed drawdown were undertaken.

5. There are no major springs that pump water into any of the lakes in the Alligator Chain. Water levels will only be lowered two additional feet below normal low pool stage and it is estimated that areas of Alligator Lake will still have depths greater than 12' to 15'. According to FWC, never in the 28 years of these types of projects that have been completed anywhere in Florida has acidic water from flowing springs been an issue.

6. The organic material that is proposed to be removed during spring 2000 is along each lake's shoreline. This organic material will not move to deeper water when water levels recede. All targeted material should be removed.

7. Stocking fish in any of the Kissimmee Chain of Lakes has never been an option for providing a quality fishery. In the Kissimmee Chain of Lakes there exists the ability to improve degraded habitat, brought on by stabilized water levels, by using extreme drawdowns and habitat enhancement projects. Quality habitat is the primary key to providing a quality resource for all wildlife and fisheries that utilize each resource. Better habitat yields greater numbers of fish, greater human use, and thus greater economic value to the area. More fish are produced in lakes with quality habitat than would be produced in hatcheries.

8. It is correct that treated noxious aquatic plants add to the sediment accumulation on the bottom of Florida lakes. However, if these non-native plants were left untreated and allowed to reproduce, then sediment build-up would actually be far greater due to the natural shedding of leaves very similar to trees. For example one surface acre of water hyacinths contains approximately 655,000 plants which deposit 30-140 tons wet weight of leaves per month or 180-840 tons wet weight per year. Scientists have also found that large floating mats of water hyacinths often degrade water quality and can lead to dramatic changes in plant and animal communities by adversely impacting native plant communities. The rapid growth rate of

non-native aquatic plants including water hyacinth enables them to quickly invade and overgrow an area. Aquatic plant managers pursue management programs to keep the non-native plant populations under maintenance control thereby reducing the total amount of plant material added to the sediment. To insure that the least amount of environmental impact occurs, the plants are treated regularly with Environmental Protection Agency (EPA) approved herbicides and applied by trained personnel certified under the laws of the State of Florida. These chemicals are degraded to harmless natural compounds by biological, chemical, and physical processes. The dead plants are also degraded into natural compound including the plant nutrients nitrogen and phosphorus. The detritus (sediment) occurring in the lakes' bottoms is composed of many kinds of vegetation including cattails, leaves from trees, and grass clippings. There is also a natural process called eutrophication that occurs in all Florida lakes. Florida's shallow lakes naturally age and can become filled with sediment and although spraying non-native invasive aquatic plants contribute to lake sedimentation, it is not the primary cause. A maintenance control program for non-native invasive aquatic plants minimizes this component of lake sedimentation.

9. Mike Hulon is not responsible for killing vegetation around any of the lakes in question. Following completion of this project the FWC will manage, with assistance from DEP and SFWMD, the vegetation on muck removal areas (both exotic and native) for the most desirable native aquatic plant species possible and at a density per acre not to exceed 50%. To date, drawdowns have always been conducted to stimulate desirable native aquatic plant production and 28 years of documentation and peer reviewed published reports supports their success. Again, Lake Jackson is used as a negative example, which is contrary to the facts. Anglers from across the United States continue to come and fish Lake Jackson and tremendously positive fishing experiences have been recorded by many. Before FWC's project started in 1994 Lake Jackson was severally underutilized and in a degraded condition.

10. Mechanical in-lake harvesters are not the only answer. No in-lake harvester on today's market can get into water depths less than two feet deep and work effectively. Often a minimum of three feet of water is required. Most of the material to be removed in these lakes is located in two and three feet water, when the lake is at high pool stage. In-lake harvesters were used in a project conducted by FWC to determine their cost effectiveness and fishery response. The cost was very high at an estimated $10,000 to $15,000 per acre. Removal of the nuisance plants, some muck and replanting with desirable native plants all resulted in very limited positive fishery response. A copy of the published report FWC prepared for Aquatics Magazine on the results of in-lake mechanical harvesting is provided (Attachment 3). The benefits of muck removal

along with a minimum 90-day drying period are what make these types of projects successful: this is basic biology.

11. FWC does not spend multi-millions of dollars on weed control. In-lake mechanical harvesting can range anywhere from $2,000 - $25,000 per acre, depending on the circumstances. Muck removal during drawdowns has consistently cost around $2,000 - $3,000 per acre, which results in savings to the fishermen and in this case the taxpayers of Osceola County. Again the benefits of drying the littoral zone far outweigh the limited fishery response to just in-lake mechanical harvesting.

12. All of the native fish in this system have survived natural droughts, sometimes exceeding the proposed low pool depth, without dying. These lakes have naturally fluctuated at greater highs and lows than is currently observed with the water control structures in place. The fish population expansion once the lake refills is what will carry the fishery for up to 10 years following the project.

13. The Corps does not know what the animal rights people's opinion on tropical fish farmers is; however, in regards to the proposed drawdown, the goal of the project is to improve conditions and natural habitat within the Alligator Chain of lakes for the various species which inhabit these lakes. Also, please see response to Comment 14 below.

14. The modeling analysis indicates that only two farms may be affected under severe drought conditions. If this, the worst case scenario, were to happen, water levels would drop less than 0.5 ft. at Moonlight Fisheries and a maximum of 0.7 ft. at Blackwater Fishery. These conditions, if they occur, would be temporary and would not be expected to have a measurable effect on the local economy. Impacts, if any, would be minimal and short-term. Regarding the $26 million in freight generated by tropical fish, the seven farms known as the Osceola Fish Farmers Association are not the only aquaculture interests utilizing the Orlando International Airport. It has been demonstrated at public meetings that there are many more aquaculture ponds in the surrounding area, the proprietors of which have chosen not to come forward. These additional farms would account for a large portion of the freight revenue.

RESPONSE TO OSCEOLA FISH FARMERS ASSOCIATION, INC.
3460 Hickory Tree Road
St. Cloud, Florida 34772
Letter Dated: 21 October 1999

1. All comment letters received on the Draft Environmental Impact Statement (EIS) with pertinent responses were provided in the Final EIS. The Final EIS is in full compliance with appropriate laws and regulations.

2. Stemle, Andersen, & Associates (SAA), in its review of South Florida Water Management District's (SFWMD) Spring 1998 modeling analysis, generated 4 primary comments. We agree with SAA in its comment that the two statements of fact provided by SFWMD in "First, the relative head differences between the water level at OS181 Well and S60 Headwater are consistent throughout the record period..." and "Second, the water table readings at Castelli Farms ranged consistently between OS181 and S60 Headwater." while true, do not support the conclusion that water table declines do not extend beyond OS181. The Army Corps of Engineers (Corps) agreement with SAA on this point does not imply that water table impacts extend beyond OS181, just that the Corps, like SAA, does not agree with the logic in the deduction. However, the Corps disagrees with SAA in its subsequent statement that "clearly, the water level reductions in all the wells following the test drawdown show that groundwater levels and surface water are related and that when lake stage levels change, the groundwater levels follow suit". This statement is unsubstantiated since the drop in well levels can be attributed to several processes including vertical recharge to underlying aquifers, evapotranspiration, and horizontal groundwater flow in accordance with an established hydraulic gradient. Also, the extent, if any, to which surface water or lake level changes (i.e., lakes) affect nearby groundwater levels is dependent on relative elevation differences, distance from the lake, soil characteristics (horizontal conductivity), rainfall recharge and time duration. At the beginning of the groundwater study, there were no field measurements of horizontal or vertical hydraulic conductivity within the model domain. In support of this modeling effort, 8 slug tests were performed by SFWMD staff, on the Surficial Aquifer System. The wells on which the slug tests were performed penetrated only a small portion of the surficial aquifer. Given this partial penetration, and the fact that slug tests do not represent the actual aquifer conductivity as well as a full aquifer pumping test, the slug tests were used simply as a starting point from which to begin model calibration. Final calibrated values for hydraulic conductivity for the surficial aquifer layer of the model are shown in Figure 6 on page H-9 in Volume II of the Final EIS. The values range from less than 25 ft/day up to 100 ft/day which are consistent with values typically computed for the given soil types. The wetlands adjacent to Lakes Alligator, Brick and Gentry, including Big Bend

Swamp are simulated in SFWMD's MIKE-SHE model. Topography for the wetlands is represented on a 200 x 200 meter grid. In addition, Russell Ditch, extending eastward and then southward from Lake Gentry into Big Bend Swamp, is represented as an overland flow component in the model. The modeling assumption in Big Bend Swamp is to allow surface water to flow all the way down to ground surface. This provision allows the model to assess the effects of dropping swamp water elevations on the adjacent fish farms. The Corps remains consistent in defining a project impact as that effect which is above and beyond the effects of the existing project. Impacts will continue to be defined on an incremental and not total basis.

3. After the peer review in January 1999, SFWMD performed additional modeling and included the analyses in the section of the Final EIS entitled Model Verification – June 1999. Some of the modeling improvements included expansion of the model grid, revision of boundary conditions and the incorporation of soft data, SPOT imagery, and National Wetlands Inventory classifications to improve the representation of topography within the Big Bend Swamp. SFWMD has since performed steady-state analysis and sensitivity analyses for specific yield as suggested by the peer review. Located in Volume 1 of the Final EIS the Department of Community Affairs reviewed and commented on the Draft EIS. Florida Fish and Wildlife Conservation Commission and the Department of State sent their comments on the Draft EIS to the Department of Community Affairs, which is stated in their letter dated June 17, 1999. All comments addressed to the Department of Community Affairs on the Draft EIS were either favorable or no comment.

4. The EIS has been prepared, reviewed, and coordinated in full accordance with all pertinent regulations, policies, and laws. The EIS has been prepared using field or other data, hydrologic modeling results, and input from appropriate resource agencies.

5. Some response letters to the Draft EIS were lengthy and therefore reduced in size to decrease the number of pages of the Final EIS. The selection of certain letters to be reduced was related to the length of the letter and not its content. There was absolutely no intent to reduce or obscure letters of objection.

6. Previous statements in the Final EIS were not meant to imply that all of Big Bend Swamp periodically dries up. However, the manipulated drying of wetlands which historically or naturally experienced drying may provide benefits to those wetlands. The intent of lowering the Alligator Lake Chain is primarily to expose the region of the lake littoral zone between elevation 60 to 62 feet so that it can be demucked. Historic lake levels (in the 30 years prior to the regulated flood control project) dropped regularly below elevation 62 feet (during 20 of the 30 years), below elevation 61 feet (during 6 of the 20

years) and below elevation 60 feet (2 of the 30 years) which allowed the accumulated muck to oxidize and decompose.

7. According to wetland classification information, the majority of Big Bend Swamp is classified as semi-permanently flooded. This would imply that Big Bend Swamp is inundated a large percentage of the time. Swamps may or may not be wetland extensions of lakes, or they can be independent of lake levels. Water running off from uplands can collect in swamps and slowly drain towards the lake. The extent of influence on surface water levels within the swamp resulting from a change in lake levels is governed by hydraulic factors such as the lake water elevation, swamp bottom elevations and hydraulic resistance to flow (Manning's roughness). In general, the higher swamp bottom elevations are in relationship to the lake water levels and the greater the hydraulic resistance to flow within the swamp, the less distance the extent of influence will extend from the lake. At some distance and vertical elevation above the lake stage, water elevations in the swamp will become clearly independent of downstream lake levels and more dependent on rainfall runoff. Near Castelli and Exotic, average swamp water elevations are between elevation 69 to 70 feet which is almost 10 feet higher than the projected drawdown levels in the lakes.

8. The purpose of the project is to enhance the quality of lake habitat although some wetland benefits may also be realized. Extreme water fluctuations play an important role in sustaining extensive areas of high-quality aquatic habitat. Stabilized water levels brought about by regulation schedules have lead to an artificial and narrow restriction of the range in which the Alligator Chain and Lake Gentry's water levels historically fluctuated. Long-term stabilized water levels lead to degradation of habitat value in adjacent wetlands as well as the lakes' littoral zones. Periodic dry conditions are a natural response to low rainfall, and historically have triggered such beneficial events as compaction of organics and fire.

9. Lakes and adjacent wetlands naturally experience wet, normal, and dry cycles. The purpose of the drawdown is to mimic the natural fluctuation of lake levels. Adjacent wetlands that have also been altered by unnaturally stable (high) water levels may also benefit from the proposed drawdown even though this is not the primary project purpose.

RESPONSE TO FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES
Tallahassee, Florida 32399-0800
Letter Dated: 25 October 1999

1. As stated in the response to comment (1) from the Florida Department of Agriculture and Consumer Services in the Final Environmental Impact Statement (EIS), the proposed extreme drawdown project appears to be consistent with the federal objectives for the Kissimmee River Basin as referenced in the General Design Memorandum (GDM). The GDM states that because changes in the regulation schedules below the elevation of the flood control pool would not affect the design of canals and structures, additional studies of benefits obtainable from formulation of a revised regulation schedule could be made in the future.

2. According to South Florida Water Management District (SFWMD), the changes in operational activities necessary for the lake drawdown are not considered to be a consumptive use of water, as regulated under Part II, Chapter 373, or implementing rules of the Water Management District (Chapter 40E-2, F.A.C. and associated Basis of Review). Authorization for the Environmental Resource Permit activities associated with the project has been received from the Florida Department of Environmental Protection (FDEP). The Army Corps of Engineers (Corps) sets criteria for regulation of water levels in lakes and canals within the Kissimmee Chain of Lakes and the appropriate authorization to allow the lake drawdown is being evaluated by the Corps. According to SFWMD, there is no state regulatory authorization required for the lake drawdown aspect of the Alligator Lake Project.

3. The Corps considers the inclusion of Dr. Voorhees initial assessment of the modeling to be important and beneficial to the EIS process; therefore, a time extension to accommodate the receipt of Dr. Voorhees and additional comments was granted.

4. The FDEP provided to Mr. Guy letter dated October 4, 1999 that addresses each of the violation allegations made by Mr. Guy on behalf of the Osceola Fish Farmers Association. As stated in the FDEP letter, the Department reviewed the allegations and a video provided by Mr. Guy's client, conducted a site inspection, and did not find evidence of any violations of the permit.

5. The planned Alligator Chain drawdown elevation was changed from 58.5 ft NGVD to 60.0 ft NGVD. This modification will reduce the potential for impacts from the project. The Florida Fish and Wildlife Conservation Commission (FWC) has adopted the Lake Gentry Postponement Alternative as their

preferred alternative in a further attempt to avoid or minimize impacts at Moonlight Fisheries. The SFWMD has indicated that its discussions with fish farmers concerning additional measures to decrease water loss from Moonlight Fisheries, installation of the proposed weir in the Blackwater ditch, and installation of temporary wells to augment potentially impacted pond levels did not result in an agreement between SFWMD and the fish farmers. Also, with regard to installation of a temporary structure in Brick Lake Canal, negotiations with landowners were unsuccessful. Therefore, if a temporary structure is constructed to maintain water levels in Brick Lake higher than in the rest of the Alligator Chain during the Alligator Chain's drawdown, it will not be located in the original planned location in Brick Lake Canal. As of early January 2000, SFWMD is still considering installation of a temporary structure to maintain water levels in Brick Lake. Also, the SFWMD and FWC have indicated that Osceola County is considering installation of the proposed weir in the Blackwater ditch. It appears possible that the additional measures to decrease water loss from Moonlight Fisheries, the installation of the proposed weir in the Blackwater ditch, the installation of temporary wells to augment potentially impacted pond levels, and the installation of a temporary structure to maintain water levels in Brick Lake, will not be performed. Therefore, for the purpose of evaluating the impacts of the drawdown project, the Corps will assume that these actions will not be performed.

RESPONSES TO LAW OFFICES OF WILLIAM E. GUY, JR.
55 East Ocean Boulevard
Stuart, Florida 34995-3386
Letter Dated: 25 October 1999

1. This letter requests a time extension to the comment period past Nov. 8, for an additional 90 days. Since this letter the time was extended until Dec. 10th. Time could not be extended further because that would have made it impossible to start a drawdown this year. A 90-day time extension therefore would have been a disguised, de facto decision, which, by inaction, would deny requested relief to those citizens and to those government agencies which have requested a drawdown. That is not appropriate. The agency allowed as much time for extra comments as possible while preserving the option of starting a drawdown this season if that was the option approved by the Record of Decision. The time allowed appears ample to have allowed a full airing of both sides of the issues.

2. The Army Corps of Engineers (Corps) welcomes Dr. Voorhees professional opinion and will evaluate his comments in an impartial and open manner.

3. In a 12 November 1999 letter to South Florida Water Management District (SFWMD), the Corps specifically requested clarification on the role of SFWMD and Danish Hydraulic Institute (DHI) in the modeling process. SFWMD responded that the DHI assisted the SFWMD in the initial setup of the model and then provided expert services throughout the remainder of the modeling effort. The DHI prepared the initial setup that included grid development, boundary conditions (with consultation of SFWMD staff), and converting the litho-stratigraphic and initial hydraulic data provided by the District into MIKE SHE format. The SFWMD developed the input data, modified the boundary conditions, calibrated the model, developed the modeling scenarios, ran the modeling application for the various scenarios, and processed the output into the formats presented in the analysis reports. Overall the effort can best be described as a SFWMD effort with set-up and consulting assistance from DHI. The DHI initial set-up work was completed in November 1997. SFWMD staff then took over the remainder of the model development effort and scenario analysis.

4. As stated previously in response #5 of the Osceola Fish Farmers Association, Inc. letter dated 12 October 1999 to whether or not SFWMD has possession of the source code does not in and of itself bring into question the accuracy of the model. If the model's source code has demonstrated reliability on similar applications, a review of the source code would not be particularly useful. Access to the source code is more typical when debugging beta version software and/or when making revisions to the code.

5. SFWMD's modeling report and results of analyses dated November 1998 were reviewed by a peer group of three hydrological experts. Their consensus was that the modeling was in general performed in compliance with accepted hydrologic practice and that the results of the analyses appeared reasonable. However, the peer group did suggest some additional analyses (steady-state simulation, specific yield sensitivity) that would help define a worst case cone of influence for the drawdown and would also establish if the model was accurately representing water levels in wetlands by comparing the region of simulated wetlands to the region of known, existing wetlands. SFWMD has since performed these additional analyses. SFWMD has provided an in-house list of project areas within South Florida that have been modeled with MIKE SHE (see Comment 3, OFFA 12 October 1999 letter to Mr. Jim Duck).

6. The MIKE SHE model of Alligator Lake and vicinity meets the Corps expectation of a groundwater/surface water model that would be required from an applicant or project sponsor.

7. In a 12 November 1999 letter, the Corps specifically requested that the SFWMD identify which of the 11 modeling items requested in Dr. Voorhees 18 October 1999 letter to Mr. William Guy had been furnished. SFWMD responded that all items, except items 2, 9 and 10 had been provided. Items 2, 9 and 10 are subject to software license restrictions and must be obtained from the software vendor. In addition, the SFWMD has provided the Alligator Model setup files that were used in the MIKE SHE application.

RESPONSES TO CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
Washington, DC 20515
Letter Dated: 25 October 1999

1. The Army Corps of Engineers is proceeding with the evaluation of this proposed action as quickly and thoroughly as possible.

RESPONSE TO OSCEOLA FISH FARMERS ASSOCIATION, INC.
3460 Hickory Tree Road
St. Cloud, Florida 34772
Letter Dated: 26 October 1999

1. Lake Tohopekaliga was in better biological condition when levels naturally fluctuated between flood elevations greater than 57' msl during drought conditions to elevations below 48' msl. However, once the man-made water control structures were in place and fully functioning Lake Tohopekaliga's shallow water habitat started to degrade. Additional problems came from the over 22 million gallons of secondary treated sewage pumped into the lake daily. All of this had resulted in the need for the proposed drawdowns and habitat enhancement projects. Today, experts believe that if nothing had been done the lake would hardly be recognizable today. Based on Florida Fish and Wildlife Conservation Commission (FWC) monitoring data, the drawdown has resulted in improve conditions and natural habitat within the Alligator Chain of lakes, and for the various species which inhabit these lakes.

2. This response assumes that the commentor is referring to "tussocks" rather than "tuskes." There are numerous publications concerning tussocks that have been peer reviewed by experts in the field of fresh water biology and that are available as references for use around the world. Responses to additional specific comments made in the letter are as follows:
   #1 - Floating tussocks in Lake Tohopekaliga will be accessible for removal during the project, as they will be left high and dry during the drawdown.
   #2 - There are boat docks around Lake Tohopekaliga that are currently inaccessible due to excess vegetation and sedimentation and many more which will become inaccessible if this lake is not enhanced.
   #3 – Although Hydrilla has been set back for up to a two-year period in areas around the lake following previous projects, it is not a project purpose to utilize the proposed drawdowns to manage hydrilla. Many species of aquatic plants now limit the recreational use of Lake Tohopekaliga. Acres upon acres of dense rank noxious aquatic plants currently limit recreational anglers, hunters, bird watchers, skiers and fish and wildlife use around the lake that will be removed during the project.
   #4 - FWC estimated in 1998 that conservatively 4,000,000 cubic yards of muck need to be removed from the littoral zone of Lake Tohopekaliga, this figures continues to increase daily.
   #5 - The Alligator Lake Chain has never had a reputation of being the best fishery in Florida and probably never will. Yes the chain does have great water quality.
   #6 - When vegetation is removed during muck removal three things can happen: 1. It can grow back; 2. More desirable vegetation often takes its place; and 3. Desirable vegetation can be replanted, if needed.